CLAIMS

[c1]   1.   A system for maintaining data objects distributed on a network, comprising:

a network controller coupled to the network and operable to enable data communications including the transmission of a data object update message and a corresponding data object update version sequence number ("OVSN"); and

a receiver coupled to the network and operable to enable data communications with the network controller, the receiver including a memory for storing a data object based on the data object update message and the OVSN and a processor coupled to the memory and operable to include a last received OVSN in a message to the network controller.

[c2]   2.   The system of claim 1, wherein the network controller includes a memory for storing the data object based on the data object update message transmitted to the receiver and a corresponding OVSN.

[c3]   3.   The system of claim 1, wherein the network controller includes a memory for storing the data object based on the data object update message transmitted to a plurality of receivers that includes the receiver and a corresponding OVSN.

[c4]   4.   The system of claim 2, wherein the network controller is further operable to increment the OVSN for each data object update message transmitted to the receiver.

[c5]   5.   The system of claim 1, wherein each data object represents an encoded message.

[c6]   6.   The system of claim 4, wherein the receiver is further operable to include the latest received OVSN in a message to the network controller.

[c7]   7.   The system of claim 6, wherein the receiver is a wireless communication device and the network is a wireless network.

[c8]   8.   The system of claim 6, wherein the network controller is further operable to decode the message from the receiver, where the message references a data object and includes the receiver's OVSN.

[c9]   9.   The system of claim 4, wherein the network controller discards messages from the receiver when the receiver's OVSN is less than the last OVSN sent to the receiver.

[c10]   10.   The system of claim 9, wherein each data object represents a macro message and has a data object version number.

[c11]   11.   The system of claim 10, wherein the receiver is further operable to transmit the data object version number to represent the version of the encoded message in a message to the network controller.

[c12]   12.   The system of claim 11, wherein the network controller is further operable to decode the encoded message based on the data object version number received from said receiver.

[c13]   13.   The system of claim 11, wherein the network controller is further operable to send data object update messages and corresponding OVSNs to the receiver based on the OVSN included in a message from the receiver.

[c14]   14.   A receiver for communicating data signals using a network, comprising:
a transceiver coupled to the network and operable to receive data communications;
          a memory coupled to the transceiver for storing data objects and data object message version sequence numbers (OVSN) transmitted from a network controller in a data communication to the receiver; and
          a processor coupled to the memory and transceiver and operable to include the last received OVSN in a message to the network controller.

[c15]   15.   The mobile communications terminal of claim 14, wherein the processor is further operable to include the largest received OVSN in a message to the network controller.

[c16]   16.   The mobile communications terminal of claim 14, wherein each data object represents an encoded message and has a data object number.

[c17]   17.   The mobile communications terminal of claim 16, wherein the processor is further operable to use the data object number in a message to the network controller to indentify a version of the encoded message.

[c18]   18.   A method of maintaining a distributed object system using a network, comprising the steps of:

receiving a data object update message with a data object update version sequence number (OVSN) from a network controller;

storing data objects based on the data object update message and said OVSN; and

transmitting the last received OVSN in a subsequent message to a network controller.

[c19]   19.   The method of claim 18, wherein each of said data objects represent an encoded message and has a data object version number.

[c20]   20.   A method of maintaining a distributed object system using a network, comprising the steps of:

receiving a message from a receiver, said message comprising an object version sequence number (OVSN), said OVSN representing a first state of a data object relating to said receiver;

comparing said OVSN with a local OVSN, said local OVSN representing a second state of said data object;

processing said message in a first manner if said OVSN is equal to said local OVSN; and

processing said message in a second manner if said OVSN is not equal to said local OVSN.

[c21]   21.   The method of claim 20, wherein the step of procesing said message in said first manner comprises the step of processing said message in accordance with said OVSN.

[c22]   22.   The method of claim 21, wherein said message comprises a macro message and the step of processing said message comprises the step of decoding said macro message.

[c23]   23.   The method of claim 22, further comprising the step of providing said decoded macro message to a dispatch station.

[c24]   24.   The method of claim 20, wherein the step of processing said message in said second manner comprises the step of ignoring said message.

13

[c25]   25.   The method of claim 20, wherein the step of processing said message in said second manner comprises the step of transmitting a data object update message with said local OVSN.

[c26]   26.   The method of claim 20, wherein the step of processing said message in said second manner comprises the step of transmitting all data objects to said receiver.

[c27]   27.   The method of claim 20, wherein the step of comparing said OVSN with said local OVSN is performed at a network controller.

[c28]   28.   The method of claim 20, wherein the step of comparing said OVSN with said local OVSN is performed at a dispatch station.

[c29]   29.   The method of claim 20, wherein the step of processing said message in said first manner comprises the step of providing said message to a dispatch station.

[c30]   30.   The method of claim 20, wherein the step of processing said message in said second manner comprises the step of providing said message to a dispatch station.

[c31]   31.   A network controller for maintaining a distributed object system using a network, said network controller comprising:

a database for storing a data object and a corresponding data object version sequence number (OVSN);

a transceiver for sending a data object update message and a corresponding OVSN, said OVSN representing a state of said data object and for receiving a message from a remote receiver, said message comprising an OVSN representing a state of a data object associated with said receiver; and

a processor for comparing said received OVSN with said OVSN stored within said database, and further for processing said message received from said remote receiver in a first manner if said received OVSN matches said OVSN stored within said database and for processing said message received from said remote receiver in a second manner if said received OVSN does not match said OVSN stored within said database.